Rubella Outbreak in Canada

Wayne Staggs, M.S. ISDH Vaccine Preventable Epidemiologist

As of May 17, 2005, 214 laboratory-confirmed cases of rubella have been reported in southwest Ontario, Canada this year. This outbreak is occurring in a community with low measles, mumps and rubella vaccination coverage and strong social adherence. The proportion of cases in vaccinated individuals is low with only .3% of the cases having been vaccinated.

The National Immunization Program has advised state health departments that a member of the Amish community in Canada has now been laboratory confirmed. Since travel among the Amish across the US-Canada border is common, health care providers should consider the diagnosis of rubella in rash cases in this group. Rubella symptoms are often mild, and up to 50% of infections may be subclinical or inapparent. In children, rash is usually the first manifestation and a prodrome is rare. In older children and adults, there is often a 1-5 day prodrome with low-grade fever, malaise, lymphadenopathy, and upper respiratory symptoms preceding the rash. The rash of rubella usually occurs initially on the face and then progresses from head to foot. It lasts about 3 days and is occasionally pruritic. Lymphadenopathy may begin a week before the rash and last several weeks. Postauricular, posterior cervical, and suboccipital nodes are commonly involved. The incubation period of rubella is 14 days with a range of 12 to 23 days. Arthralgia and arthritis occur so frequently in adults that they are considered by many to be an integral part of the illness rather than a complication. Rubella infection acquired during early pregnancy can lead to miscarriage or severe birth defects known as Congenital Rubella Syndrome (CRS). CRS occurs in up to 90% of infants born to mothers who are infected in the first trimester of pregnancy.

A suspected case of rubella should be reported to the local or state health department immediately and any person suspected of having rubella should have serological testing performed. Recent rubella infection can be serologically confirmed by the presence of serum rubella IgM. For IgM analysis, sera should be collected at least three days following rash onset and sent to the Indiana State Department of Health Laboratory. Local and state health department staff can assist in ensuring that specimens arrive at the ISDH Laboratory as soon as possible. State Health Department staff will also perform a standard investigation, including the interviewing the patient and any exposed contacts (especially pregnant women).

Rubella was declared eliminated endemically from the United States in March of this year (see Achievements in Public Health: Elimination of Rubella and Congenital Rubella Syndrome --- United States, 1969--2004) Given that rubella is still a disease of high incidence in other areas of the world, and in light of the Canadian outbreak, we should continue our vigilance against rubella and CRS by 1) maintaining high vaccination rates among children; 2) ensuring vaccination among women of childbearing age, especially women born outside the United States; 3) continuing surveillance of both rubella and CRS; and 4) responding rapidly to any confirmed case report or outbreak.

For additional information on rubella disease you may go to the following Web site http://www.cdc.gov/nip/publications/pink/rubella.rft and click on rubella).